MY

THS

ABOUT TECHNOLOGY-SUPPORTED PROFESSIONAL LEARNING

By Joellen Killion and Barbara Treacy

The future of professional learning is shaped by its present and past. As new technologies emerge to increase affordability, access, and appropriateness of professional learning, three beliefs are visible in current practices related to online learning. Each contains a premise that merits identification and examination. We call these beliefs myths that may emerge from faulty assumptions about what learning is, how it occurs, or how to bring about its transfer to practice.

This article examines these three commonly held myths about technology-supported professional learning. Each has significant implications for how state or provincial agencies, school systems, or schools support professional learning and how individual educators experience it. In addition, these myths have implications for vendors and providers of technology-supported professional learning.

Myth 1: Access equals learning.

Myth 2: Knowledge improves practice.

Myth 3: Individualized learning alone transforms schools.

MYTH 1
ACCESS EQUALS LEARNING.

"You can lead a horse to water, but you can't make it drink."
— English proverb

Education agencies are rapidly developing platforms to support educator professional learning aligned with educators' individual growth and development goals. These goals, often drawn from an educator's evaluation, are intended to expand and refine professional practice based on thoughtful analysis and constructive feedback of a supervisor or team of reviewers.

Individual goals use observation of practice, student achievement, and other forms of evidence to identify areas for growth. The platforms are intended to provide easy access to a rich array of resources to support achievement of individual goals.

The idea of individualized goals for development based on individual data makes sense. Providing access to rich resources to support professional growth is not only logical, but is also a responsibility of education systems.

States, districts, and other education agencies approach this work differently, yet nearly all are creating platforms

that incorporate marketplaces, embedded resources purchased from vendors, or access to vendor products; developing their own resources; or using some combination of these approaches.

Educator effectiveness is associated with student success. Most educator standards incorporate one about professional responsibility for continuous improvement. Providing access to resources for educator learning and growth acknowledges that education agencies are committed to supporting educator professional growth and development. Making resources convenient to access and aligned to state or district professional educator standards and student curriculum reinforces the link between educator growth and student learning.

Yet in most cases, the circle is not closed. Providing access is not equivalent to learning. Access is one step of the learning process. It puts information, models, relevant resources, and opportunities to network with other educators at the fingertips of educators — provided the bandwidth, hardware, and software are available.

Easy access facilitates the process of seeking answers to perplexing instructional challenges, reading an article about different ways of knowing, searching for instructional materials or fresh ideas, or connecting with other educators about how to meet the needs of students with limited English in a social studies classroom.

So these questions must be asked: Does access constitute professional learning? Does the process of choosing a lesson plan from an instructional support system or watching a model lesson via videostreaming equate to learning if a teacher's goal is to design effective lessons that integrate the core components of the district's instructional framework? Does the process of accessing information or resources alter what an educator knows, is able to do, believes, and actually does in practice?

ALIGN RESOURCES TO STANDARDS

Access contributes to learning, yet educators must use what they access to strengthen their practice to impact student success. Those making decisions about educator support systems should align resources to the educator performance standards and student learning standards. The more aligned and relevant resources are to educator and student standards, the more likely it is that accessing support systems will contribute to professional learning that results in change in practice and student success.

MYTH 2
KNOWLEDGE EQUALS PRACTICE.

"One must learn by doing the thing, for though you think you know it, you have no certainty until you try."

— Sophocles

Many developers of online learning products base their work on the assumption that knowledge leads to application. The research of Bruce Joyce and Beverly Showers (2002) counters this assumption. They surmise from multiple research studies about changing instructional practice that presenting theory, information, concepts, or principles alone is insufficient in promoting application of learning.

They further suggest that seeing models or demonstrations does little to promote application. Even intentional practice has little influence. What is most influential in promoting application of new learning is deeper study, coaching, and feedback.

Benjamin Bloom places knowledge and comprehension at the lowest levels of his taxonomy of levels of understanding. The premise is that knowing and comprehending are less cognitively complex than those levels of understanding that follow — application, analysis, evaluation, and creating.

Donald Kirkpatrick and James Kirkpatrick (2006) describe levels for the evaluation of training that place acquisition of knowledge at the second of four levels, application at the third level, and results for clients as the final level.

Grant Wiggins and Jay McTighe (2005) identify explaining — providing thorough and justifiable accounts of phenomena, facts, and data, as the first of six facets of understanding.

Knowing or comprehending may initiate the change in knowledge and skills that lead to application of learning and eventually produce results for students; however, alone they are insufficient to be equated with professional learning. Too often, some models of online learning depend on a knowledge transmission approach to learning. If it fails to include application of learning in multiple contexts, plus an analysis of and reflection on practice, is it professional learning?

Change in professional practice begins with knowledge and ends when the educator thoroughly analyzes available resources, contemplates how to adapt them to his or her unique circumstance, makes those adaptations, applies the adaptations in practice, and reflects on the effectiveness of the practice in terms of benefits for students. Professional learning is measured in expanded knowledge and skills, refinements in practice, and impact on student learning.

MYTH 3

INDIVIDUALIZED LEARNING ALONE TRANSFORMS SCHOOLS.

"Episodic and ineffective professional development is replaced by professional learning that is collaborative, coherent, and continuous and that blends more effective in-person courses and workshops with the expanded opportunities, immediacy, and convenience enabled by online learning."

— U.S. Department of Education Office of Educational Technology, 2010

Technology enables powerful new online learning opportunities for educators to experience individualized, interest-driven, just-in-time learning that can be pursued anytime, anyplace, and with any device. This kind of personalized learning addresses common challenges of one-size-fits-all professional development and removes the barriers of time and place that limit busy teachers' access to the professional learning they need and want.

For these reasons, individualized online learning models are growing rapidly, with an increasing number of educators engaging in their own online personal learning networks using a variety of social media tools and accessing online journals, encyclopedias, tutorials, other media, and resources based on their own needs, with just-in-time support where and when they need and want it.

Twitter chats, blogs, Nings, Google+ groups and communities, Open Education repositories, digital museum resources, and online libraries all offer a proliferation of educator-focused online resources. An *Education Week Teacher* article titled "Fighting teacher isolation with technology" describes how individualized, interest-driven learning is rapidly spreading in popularity (Magiera, 2013).

The U.S. Department of Education-funded Connected Educators initiative is an example of a large-scale, free, online professional opportunity that is engaging thousands of educators from across the country on a range of topics of interest to them. The initiative sponsored a Connected Educators Month in October 2013 with more than 600 events.

While self-directed online learning models provide effective ways to address individual educator learning goals, educators are not solo contractors, nor is learning a solitary process. Educators work interdependently with other educators to achieve team, school, district, and state goals for student learning.

Individual learning therefore may increase variance among classrooms, leading to higher differences in student learning. Individual learning is insufficient to achieve success for all students within a school. In a recent study of the diffusion of professional development, researchers found that sharing expertise through collegial interactions has nearly the same effect on changes in instructional practices as direct engagement in professional development (Sun, Penuel, Frank, Gallagher, & Youngs, 2013).

Ideally, platforms for professional learning should blend individual and collaborative learning to diffuse effects among educators. Educator professional learning plans should include a combination of both individualized and collaborative online approaches within a continuum of learning opportunities, both online and face-to-face.

As a result, platforms for professional learning must engage educators in purposeful collaboration with a community of learners designed to meet not only individual learning goals, but also those of teams, schools, districts, and programs. Such communities can provide powerful ways to address specific school, district, and programmatic learning goals systemically — goals that may not be as easily or fully achieved by individuals engaged in independent, online, or face-to-face professional learning.

RECOMMENDATIONS

Developers and providers of technology-supported professional learning platforms or products have a responsibility to examine the beliefs upon which their products or services are based and analyze the design against learning theory, standards for professional learning, and research- and evidence-based practices. Here are recommendations to ensure that technology-supported professional learning translates to improved teacher practice and student learning outcomes.

Promote collaborative learning to reduce isolation and variance in students' opportunity to learn. Teaching is an isolating profession. Online professional learning, designed with a learning community model, enables educators to build strong connections with other educators, give and receive feedback, share and analyze student work, collaborate on curriculum and instruction, interact with local and distant experts and colleagues, and engage in reflection in, on, and for practice.

"A new culture emerges as teachers shift away from a paradigm of isolation and closed doors," reports the *Connected Educator Starter Kit.* "As educators grow into connected learners, they not only start to ask more critical questions of each other related to practice, but they also begin to actively listen and closely attend to varied perspectives that may help the community of learners to move forward" (Powerful Learning Practice, 2013). The effect of peer excellence spills over across classrooms and promotes a culture of continuous improvement.

Advance professional learning as a social and collaborative process. In the Knowledge Age, where information is abundant, no one can know everything he or she needs to know. A knowledgeable person has more than a collection of information, but rather is competent in information acquisition and analysis and the use of social connections and networks for collaborative construction of new knowledge emerging in a rapidly changing world.

James Paul Gee, an education and games researcher at Arizona State University, noted, "Success in the 21st century at work and in life requires collaboration, collective intelligence, and smart teams using smart tools" (2013).

Increase collaborative professional learning to increase impact on educator and student learning. Learning Forward's widely recognized Standards for Professional Learning include a standard focused on the importance of learning communities: "Professional learning that increases educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment" (Learning Forward, 2011). For nearly 30 years, researchers have confirmed the positive impact of collaboration on educators, school cultures, and students.

Design and disseminate technology-enhanced programs, products, and services that support effective professional learning that builds educators' knowledge, skills, dispositions, and practices. Paulo Friere (1998) acknowledges that learning is a social process. He pairs praxis — a cycle of theory, application, evaluation, reflection, and new or adjusted theory — with dialogue — the process of working collaboratively and respectfully with one another to listen, question, and construct understanding. Building on Freire's critical pedagogy theory, online learning has tremendous potential to integrate application, analysis of, and reflection on practice.

Learning experiences that engage learners in adapting learning for application within their own unique contexts or in diverse contexts allow learners to personalize their learning, link it to their specific grade level and content area, and use it to support student learning.

Overall, individual and collaborative online models, combined in an effective balance, enable new models of professional learning that address a continuum of ongoing learning that educators need, both formal and informal, both individually and collaboratively driven.

The interplay of both of these models speaks directly to the National Education Technology Plan goal for teaching: "Professional educators will be supported individually and in teams by technology that connects them to data, content, resources, expertise, and learning experiences that can empower and inspire them to provide more effective teaching for all learners" (U.S. Department of Education Office of Educational Technology, 2010).

ESSENTIAL KNOWLEDGE

InTASC Model Core Teaching Standards incorporate performance, knowledge, and dispositions and define them as follows:

" 'Essential knowledge' signals the role of declarative and procedural knowledge as necessary for effective practice, and 'critical dispositions' indicates that habits of professional action and moral commitments that underlie the performances play a key role in how teachers do, in fact, act in practice" (CCSSO, 2011, p. 6).

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Joellen Killion (joellen.killion@learningforward.org) is Learning Forward's senior advisor. Barbara Treacy (btreacy@edc.org) is director of EdTech Leaders Online at Education Development Center. ■